

**ABSTRACT**

A system for weighing a load that uses a weighing apparatus comprising a plurality of load cells (1), a means for receiving a load supported by said load cells, a means associated with each load cell (1) to supply a digital representation of the load on each load cell, said load cells being connected together to form a communication network, wherein a digital representation of the load on each load cell (1) is generated, a correction coefficient  $X_j$  of said digital representation for each load cell (1) is determined, said correction coefficient  $X_j$  is stored in the respective load cell (1) and the gain of each load cell is varied according to its correction coefficient  $X_j$  to generate a correct digital representation of the load for each load cell (1).